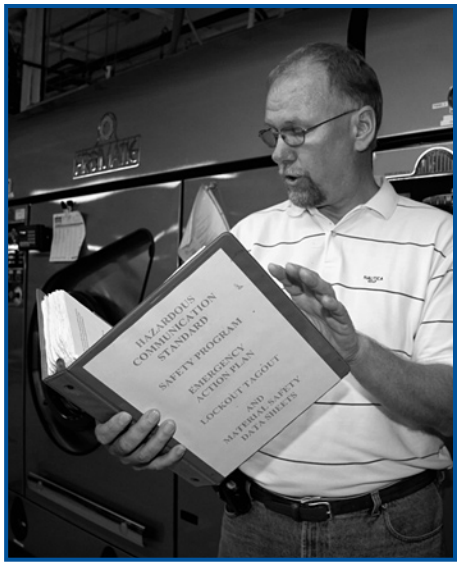
Introduction



The hazard communication standard is designed to make information about hazardous chemicals that are present in workplaces available to exposed employees. The hazard communication standard applies to any business, including manufacturers that use hazardous chemicals, regardless of the number of individuals employed. The applicable standard is in Title 29, Section 1910.1200 of the Code of Federal Regulations.

The standard requires manufacturers or importers to assess the hazards of chemicals, which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels, and other forms of warning, material safety data sheets, and information and training. All Indiana employers are required to develop a hazard communication program if their employees are exposed to hazardous chemicals.

Employers must have a written program. The written program must include:

- How container labeling, including pipes and piping systems, will be addressed by the employer;
- How employee training will be administered, and how information regarding use of hazardous chemicals will be disseminated;
- How material safety data sheets will be developed and maintained;
- A list of all hazardous chemicals. The chemical name on this list must be the same as on the MSDS and container label to allow for cross-referencing. The list can be compiled for the workplace as a whole or for individual work areas;
- How employees will be informed about the hazards of non-routine tasks, such as production equipment maintenance or repair;
- How information will be communicated about exposure to hazardous chemicals when working in multi-employer settings (e.g., a contractor is working on the premises). This information includes:
  - The method for accessing each employer's MSDSs;
  - Appropriate training of exposed employees by their respective employer on the hazards posed and any necessary controls or personal protective equipment required; and
  - The labeling mechanism used by each employer.

In addition to the written program:

- Employees must be trained in the identification, use, and hazards of the chemicals they work with and any appropriate protective measures (29 CFR 1910.1200[h][3]).
- MSDSs for hazardous chemicals must be maintained in an orderly fashion and accessible to the employee within the work shift (29 CFR 1910.1200 [g][8]).
- Containers, such as spray bottles, bags, drums, and storage tanks, must be labeled or identified with the content and type of hazard the material poses. Labels from the manufacturer or distributor must also contain the name and address of the manufacturer.
- All pipes and piping systems in the workplace that contain hazardous chemicals must be identified by labels, signs, color coding, placards, written operating instructions, batch tickets, process sheets, schematics, or any other method of demarcation at takeoff and central points.

Product manufacturers are responsible for providing properly labeled containers. There are some federal acts with labeling requirements that supercede the labeling requirements of 29 CFR 1910.1200 (b)(5). If a product is subject to one of the following acts, the manufacturer must comply with that particular act's labeling requirements and not the hazard communication standard labeling requirements:

- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA);
- Federal Food, Drug, and Cosmetic Act;
- Federal Alcohol Administration Act;
- Consumer Product Safety Act;
- Federal Hazardous Substances Act;
- Federal Seed Act; and
- Toxic Substances Control Act (TSCA).

Another provision of the hazard communication standard requires employers to retain all U.S. Department of Transportation placards, labels, and markings on incoming containers. These labels must remain on the containers until they are cleaned and purged of all residue and vapors. Employers who transfer chemicals from these types of containers (e.g., 55-gallon drums), to in-house containers do not need to transfer the label unless the container will be shipped off the work site.

The hazard communication standard does NOT apply to:

- Hazardous waste as defined in Chapter 2 (such as spent solvents);
- Articles [anything that during the course of its normal use does not have the potential to result in exposure of the employee to a hazardous substance (e.g.,

shipping containers and tools), food, drugs, or cosmetics intended for personal consumption by employees while in the workplace (29 CFR 1910.1200 (b)(6)]; and

- Consumer-use items (i.e., materials any ordinary consumer could purchase. To be exempt from coverage, these consumer items must be used in the workplace in the same fashion and amount as the ordinary consumer would use them. While many of the hazardous materials used by manufacturers are available to consumers, these products are not used in a consumer fashion and, therefore, are not exempt.)

Reading a Material Safety Data Sheet

Indiana's Employee Right-To-Know Law requires that information about hazardous substances found in the workplace be made available to exposed employees. Accordingly, employers must have a Material Safety Data Sheet (MSDS) for every hazardous chemical in the workplace and make these sheets available to their employees. A proper MSDS lists the content of the product and if any of the ingredients are subject to specific regulations. It also identifies special precautions that should be taken when storing, using, and disposing of the product. An MSDS can be a valuable reference tool; however, it should not be considered a complete source of information about the product since all information may not be included. For instance, an MSDS is not reliable if used to determine the presence of hazardous waste because it does not include information about the contaminants that might be found in the used product.

Each MSDS must include the same basic information; however, the format can vary from one manufacturer to another. You can obtain an MSDS from your supplier, or you may order them from the manufacturer's technical or customer service departments. Product labels should include the manufacturer's name and address and/or telephone number so you can contact them to request an MSDS or additional information about the product. Many MSDSs can also be accessed on the Internet. Free MSDSs are available at www.msds.com.

Every MSDS must include the following information:

- Product Identification
  This includes the trade name, chemical name, and any common name, along with the manufacturer's name, address, and emergency telephone number. If a chemical abstract service (CAS) number is given, you can usually find out more information about the substance in a chemical abstract or on the Internet.

- Hazardous Ingredients
  This section identifies the ingredients contained in the product, usually broken down into percentages. The ingredients must be listed if they are more than one percent of the total product, or more than 0.1 percent if carcinogenic, unless it is

considered to be proprietary or a trade secret. This section also includes the Occupational Safety and Health Administration permissible exposure limit (PEL), short-term exposure limits (STEL), and threshold limit values (TLVs). PEL and TLV numbers indicate the airborne contaminant levels that most healthy, adult workers may be repeatedly exposed to for 8 hours a day, 40 hours a week without adverse effect. The STEL number is the maximum concentration of product that a worker may be exposed to for a specified time, usually 15 minutes. These limits, however, do not provide adequate protection for everyone. They do not consider exposure rates for children, pregnant women, hypersensitive individuals, or other high-risk groups. They also do not apply to shifts longer than 8 hours or to people who live and work in the same environment.

- Physical and Chemical Data
  This section identifies whether the product is a liquid, solid, or gas at room temperature. It also includes the vapor pressure, which indicates how easily the product evaporates, and the vapor density, which indicates where vapors may accumulate. Products with vapor densities greater than one tend to accumulate in low areas. This section also lists the product's boiling point, melting point, density, and solubility in water.

- Fire and Explosion Hazard Data
  In this section, hazards are referenced by the flashpoint, which is the lowest temperature at which vapors will ignite in air when exposed to flame. Materials with a flashpoint below 100 degrees Fahrenheit are dangerous because a spark or static electricity can cause a fire or explosion. This section should also identify what measures should be taken to put out a fire if one occurs and if any special fire fighting procedures or equipment are needed.

- Reactivity Data
  This section discusses the product's stability and any special precautions to take if mixing. It also indicates which substances are incompatible with the product and should not come in contact with it. This information is useful when choosing safe storage conditions.

- Health Hazard Data
  This information tells you how the product's chemicals normally enter the body, the acute effects of exposure, signs and symptoms of exposure, as well as emergency and first aid procedures. It may indicate if the product is listed as a carcinogen on the National Toxicology Program Annual Report on Carcinogens or is a potential carcinogen according to the International Agency for Research on Cancer, or OSHA.

- Precautions for Safe Handling and Use
  This section identifies what procedures are needed for cleaning up spills and leaks, how to clean or dispose of contaminated clothing, and how to dispose of the unwanted or unused portions of the product. In general, disposal information is often vague since local, state, and federal regulations vary.

- Control Measures
  This section describes what personal protective equipment, work practices, and ventilation procedures to utilize when handling the product.

If you need information that is not given on the MSDS, contact the manufacturer for more details. You may also find product information in a variety of other resources like chemical dictionaries, toxicology and industrial hygiene publications, and documents available from the U.S. Government Printing Office, which can be contacted toll free at (866) 512-1800; or, refer to www.gpo.gov.

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